

Abstract

The invention relates to a novel type of customizing kit (1) for a vehicle air suspension system, comprising an additional air spring volume (2) with a connecting line (6) which can be connected to a vehicle main air spring volume (4), and with a switching device (8) for selective connection or disconnection of the additional air spring volume (2). The switching device (8) is arranged in the area of the connecting line (6) and is designed such that, on the one hand, when it is in an open position, it releases the cross section of the connecting line (6) virtually completely for flow to pass through in both directions and, on the other hand, when it is in a closed position, reduces the cross section to a specific residual opening cross section, such that this results in effective closure of the connecting line (6) by use of the so-called Helmholtz effect in a specific region (which can be expected in practice) of an excitation frequency of the oscillating air volume. The switching device (8) is in this case preferably formed by a restrictor valve (14) which is in the form of a disk, is arranged in the connecting line (6) and is mounted such that it can rotate about a shaft (16) running transversely with respect to the connecting line (6) such that its disk surface is aligned in the longitudinal direction of the connecting line (6) in the open position, and is aligned in the transverse direction in the closed position, with the residual opening cross section in the closed position being formed by a circumferential gap (18) which surrounds the restrictor valve (14).

Figures 1 and 5